

Appl # 10/789,146

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Filed 02-28-2004

Reply to Office Action dated November 15, 2006

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AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (Original) A method of detecting the position of a foot during a jump takeoff, comprising the steps of:

- (a) providing a plurality of light beams;
- (b) providing a plurality of light detectors for sensing said plurality of light beams;
- (c) enabling at least one light beam at a time of said plurality of light beams, enabling at least one light detector corresponding to said at least one light beam;
- (d) indicating the presence or absence of each one of said plurality of light beams; and
- (e) displaying the position of a foot during a jump takeoff.

2. (Original) The method of detecting the position of a foot during a jump takeoff of claim 1, further comprising the step of:

collimating each one of said plurality of light beams, collimating each one of said plurality of light detectors.

3. (Original) The method of detecting the position of a foot during a jump takeoff of claim 2, further comprising the step of:

collimating each one of said plurality of light beams and light detectors by placing an aperture in front of each one of said plurality of light beams and light detectors.

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4. (Original) The method of detecting the position of a foot during a jump takeoff of claim 1, further comprising the step of:

enabling said plurality of light beams and said plurality of light detectors sequentially.

5. (Original) The method of detecting the position of a foot during a jump takeoff of claim 1, further comprising the step of:

storing the presence or absence of each of said plurality of light beams in a memory.

6. (Original) The method of detecting the position of a foot during a jump takeoff of claim 1, further comprising the step of:

recalling said presence or absence of each of said plurality of light beams from said memory by a recall switch activation.

7. (Deleted) A jump takeoff position indicator system for detecting and displaying the foot position of an athlete when starting a jump, comprising;

- (a) an infrared light beam emitting device for emitting a plurality of infrared light beams;
- (b) an infrared light beam detecting device for detecting the presence of said plurality of infrared light beams;
- (c) a collimating means for collimating the emission and detection of said plurality of infrared light beams;
- (d) a synchronization means for synchronizing the emission of said plurality of infrared light beams with the detection of said light beams by said infrared light beam detecting device; and



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(e) a display means for displaying the presence or absence of said plurality of infrared light beams;

whereby the foot position during a jump takeoff is determined and displayed.

8.(Deleted) The jump takeoff position indicator system of claim 7, wherein said infrared light beam emitting device is an electronic assembly containing a plurality of infrared LEDs spaced at predetermined intervals with at least microcontroller for controlling the operation of said plurality of infrared LEDs.

9.(Deleted) The jump takeoff position indicator system of claim 8, wherein said plurality of infrared LEDs are turned on sequentially by said microcontroller, wherein only one of said plurality of infrared LEDs is energized at a time.

10.(Deleted) The jump takeoff position indicator system of claim 7, wherein said infrared light beam detecting device is an electronic assembly containing a plurality of infrared sensors spaced at predetermined intervals with at least one microcontroller for controlling the detection of said plurality of infrared light beams by said plurality of infrared sensors.

11.(Deleted) The jump takeoff position indicator system of claim 7, wherein said collimating means is a mounting block containing a plurality of apertures of predetermined diameter located at predetermined intervals placed directly in front of said plurality of infrared LEDs and infrared sensors.

12.(Deleted) The jump takeoff position indicator system of claim 7, wherein said synchronization means is provided by preferably two infrared LEDs located at opposite ends of said infrared light beam emitting device, said infrared LEDs controlled by said at least one microcontroller.

13.(Deleted) The jump takeoff position indicator system of claim 7, wherein said display means comprises a plurality of visible LEDs, providing one LED for each of said plurality of infrared sensors contained in said infrared light beam detecting device.

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14.(Deleted) The jump takeoff position indicator system of claim 7, wherein said infrared light beam emitting device is powered by a battery and wherein low battery detection is provided.

15.(Deleted) The jump takeoff position indicator system of claim 7, wherein said infrared light beam emitting device is provided in a housing, said housing provided with a plurality of alignment marks for visual alignment of said emitting device with said detecting device.

16.(Deleted) The jump takeoff position indicator system of claim 7, wherein said infrared light beam detecting device is powered by a battery and wherein low battery detection is provided.

17.(Deleted) The jump takeoff position indicator system of claim 7, wherein said infrared light beam detecting device is provided in a housing, said housing provided with a plurality of alignment marks for visual alignment of said detecting device with said emitting device.

18. (Original) A jump takeoff position indicator system for detecting and displaying the foot position of an athlete when starting a jump, comprising;

- (a) an infrared light beam emitting device for emitting a plurality of infrared light beams;
- (b) an infrared light beam detecting device for detecting the presence of said plurality of infrared light beams;
- (c) a collimating means for collimating the emission and detection of said plurality of infrared light beams;
- (d) a synchronization means for synchronizing the emission of said plurality of infrared light beams with the detection of said light beams by said infrared light beam detecting device;
- (e) a display means for displaying the presence or absence of said plurality of infrared light beams;

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(f) a memory for storing the status of said plurality of infrared light beams at the moment of takeoff; and

(g) a recall switch for recalling and displaying said status on said display means; whereby the foot position at jump takeoff is stored and displayed at the desired time.

19. (New) A jump takeoff position indicator system comprising:

(a) a light beam emitting assembly containing a plurality of infrared light emitting devices for emitting a plurality of infrared light beams;

(b) a light beam detecting assembly containing a plurality of infrared light detecting devices for detecting the presence of said plurality of infrared light beams;

(c) a collimating means for collimating one of said infrared light emitting devices to one of said infrared light detecting devices;

(d) a storage means for electronically storing the absence of one or more of said plurality of infrared light beams; and

(e) a display means for displaying the absence of one or more of said plurality of infrared light beams;

whereby said jump takeoff position indicator system of claim 18 can detect, store, hold, and display the position of the athlete's foot at the moment of takeoff.

20. (New) Said jump takeoff position indicator system of claim 18 in which both said light beam emitting assembly and said light beam detecting assembly contain a microprocessor that enables and synchronizes said plurality of infrared light emitting device and said plurality of infrared light detecting devices to operate in a single emitter and detector pair;

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whereby said jump takeoff position indicator system of claim 19 may be battery-powered.